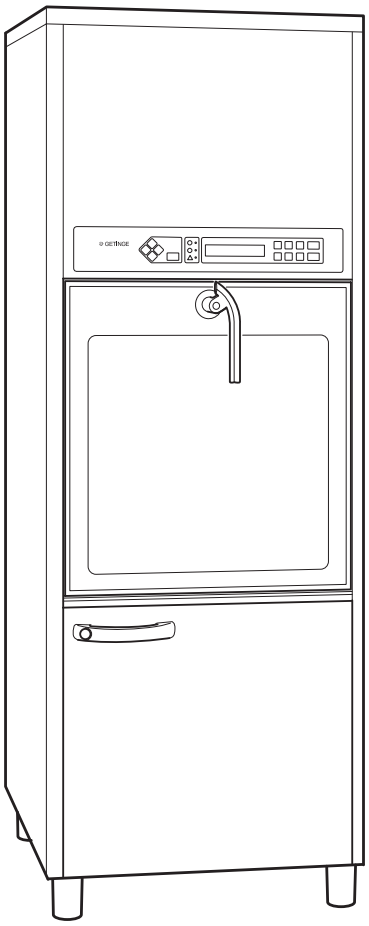
INSTALLATION INSTRUCTIONS



Washer disinfector
46-2,46-4,46-5

Mfg. no.. SEV0632001-
5018606-00 Rev.C

CE 0413

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Safety regulations

This machine has been designed with a number of built-in safety devices. To avoid injury, it is very important that these safety devices are not bypassed and thus disabled.

The machine must be assembled and installed by

- qualified personnel.
- in accordance with current local regulations and rules.

When the work is complete, check that

- all parts have been installed in accordance with the installation instructions
- all screws have been properly tightened
- there are no sharp edges on any parts that may come into contact with people
- all hoses, pipes and connections are intact and free from defects
- all the functions of the machine are working properly. Adjust if necessary.

Product liability

Any modification or incorrect use of the equipment without the approval of Getinge Disinfection AB invalidates Getinge Disinfection AB's product liability.

Isolating device

The machine should be fitted with a separate isolating device in the electric power supply. The isolating device must be easily accessible on a wall close to the machine.

Attention symbols

Some of the warnings, instructions and advice in this manual are so important that we use special symbols to draw attention to them. The symbols used are as follows:

This symbol indicates a warning in the text of the manual. The nature of the hazard that the warning relates to is such that it may result in more or less severe injury and in certain cases mortal danger.

It also highlights warnings to avoid damage to equipment.

Installation

- The floor where the machine is to stand must be flat and level within ±5 mm.
- Pull the machine (on a transport pallet) to the location where it will be installed.
- Lift the machine off the pallet.
- Position the machine at the chosen location and adjust the feet so that the machine is stable. The adjusting feet must be screwed out not more than 110 mm from the underside of the machine (the 100 mm dimension on Figure 3 can be ±10 mm). There must be clear space for loading/unloading the machine 1700 mm in front of the door(s) of the machine.
- Place a foot plate under each adjusting screw. Foot plates are supplied in a plastic bags in the chamber of the machine.

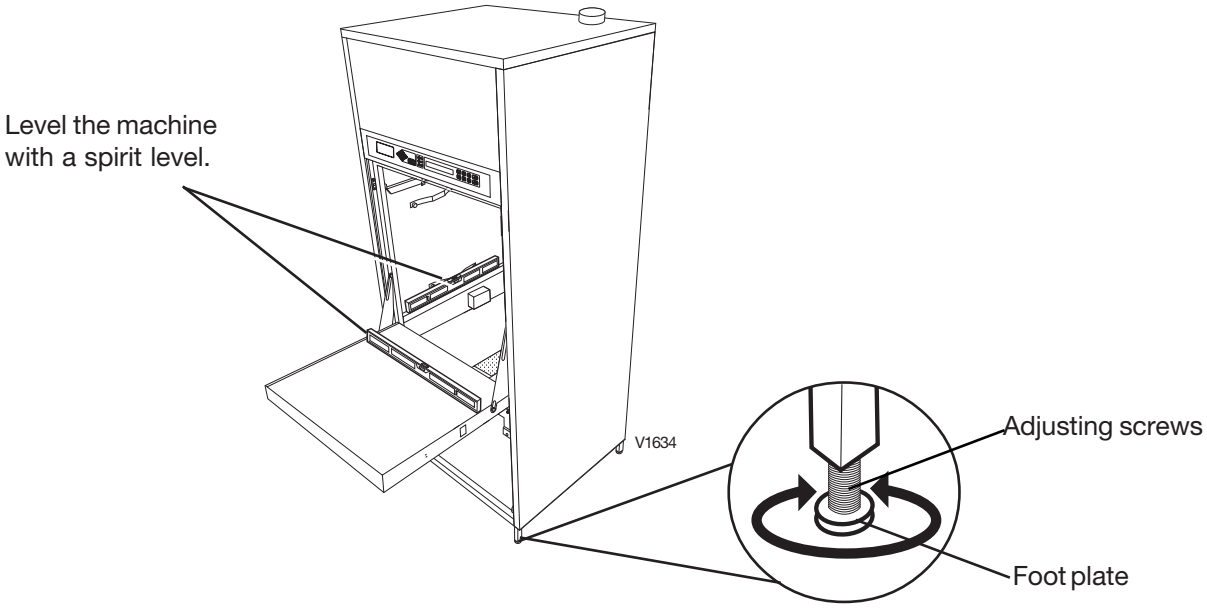


Figure 1. Adjustment

- Using a spirit level, check as shown in Figure 1 that the machine is level within ±2 mm,
- Free-standing model: prepare a water supply and a waste connection by breaking out suitable prepared openings in the rear cover plate panel of the machine.
- If the machine is to be moved with a pallet truck, the forks of the pallet truck must be positioned as shown in Figure 2 to avoid damage to the machine.

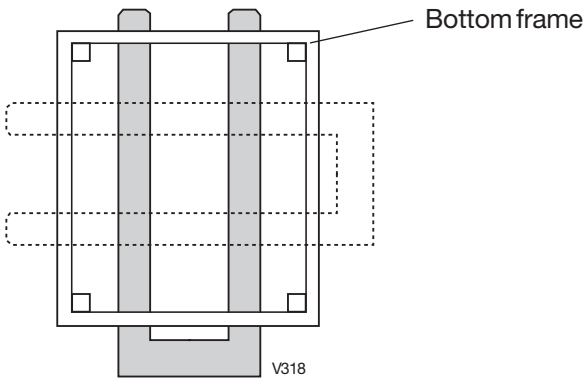
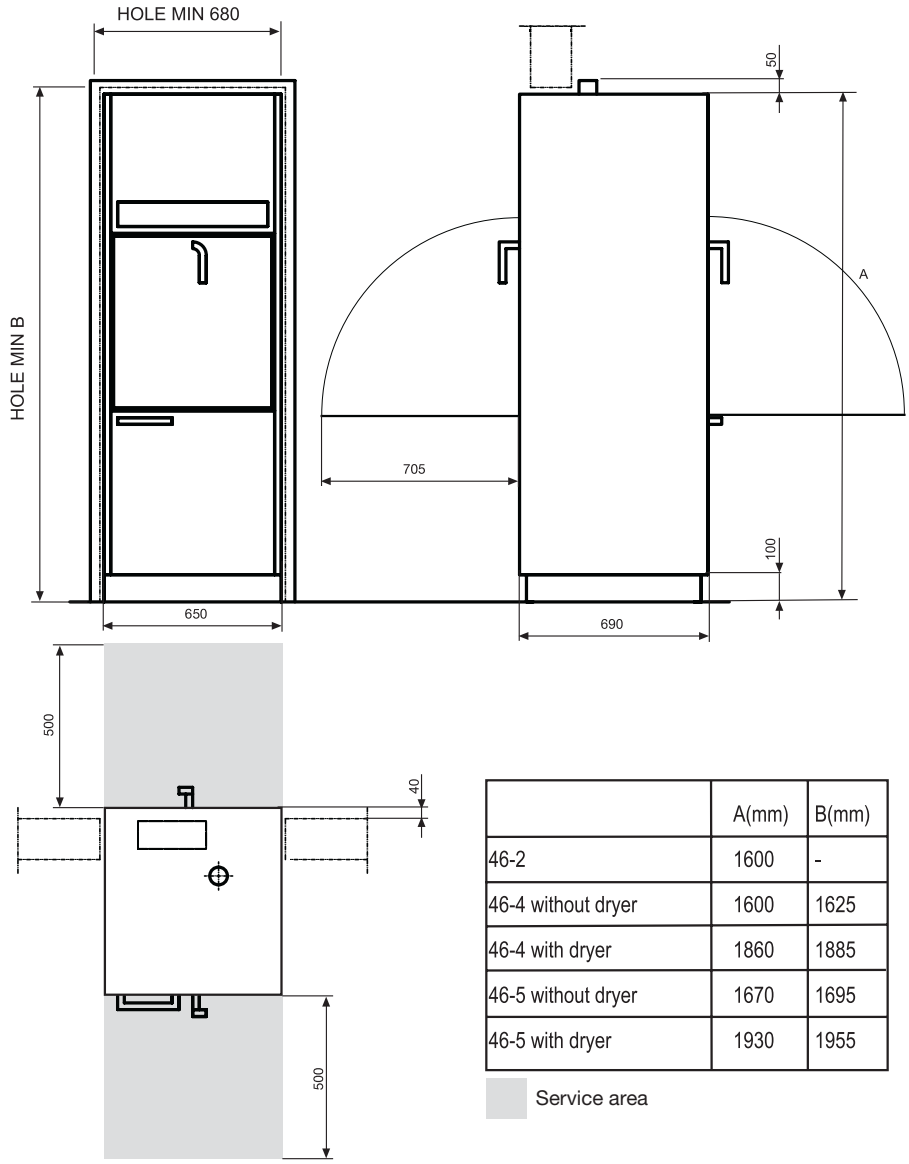


Figure 2. Positioning the pallet truck forks.

Wall-mounted model

- If the machine has double doors and is to be mounted in a wall, the distance between machine and wall must be 15 mm.
- If more than one machine is to be installed next to each other they must be adjusted to the same height on installation.
- Where a plinth plate is used, the height from the floor to the underside of the machine must be at least.
- Set the machine horizontal with a spirit level on the side of the machine and adjust with the feet. The adjusting feet must be unscrewed not more than 110 mm from the underside of the machine.
- For the loading trolley to work in all the machines, the floor in front of them must be flat and level.



	A(mm)	B(mm)
46-2	1600	-
46-4 without dryer	1600	1625
46-4 with dryer	1860	1885
46-5 without dryer	1670	1695
46-5 with dryer	1930	1955

Service area

Figure 3. Mounting in a wall

Free-standing model

- Secure the tipover protection to the machine with the screws, then secure the backplate.
- Fix the tipover protection to the wall with screws.

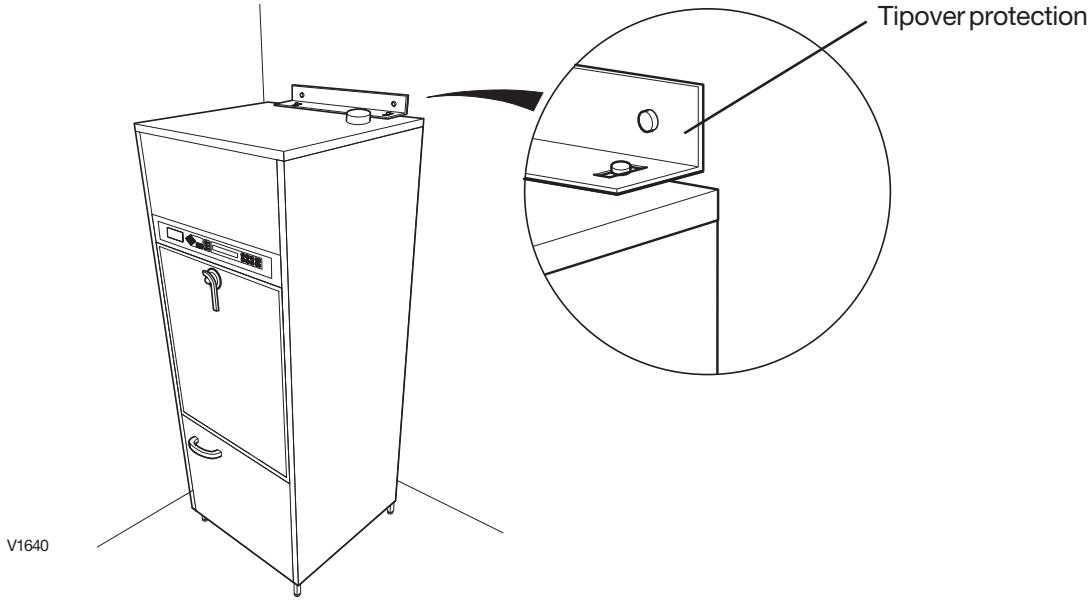


Figure 4. Tipover protection

- Check that the door and the two side plates are parallel.

If not:

- Open the lower door and adjust the machine.
- To adjust the machine to the left, turn the nuts to the left; to adjust the machine to the right, turn the nuts to the right.

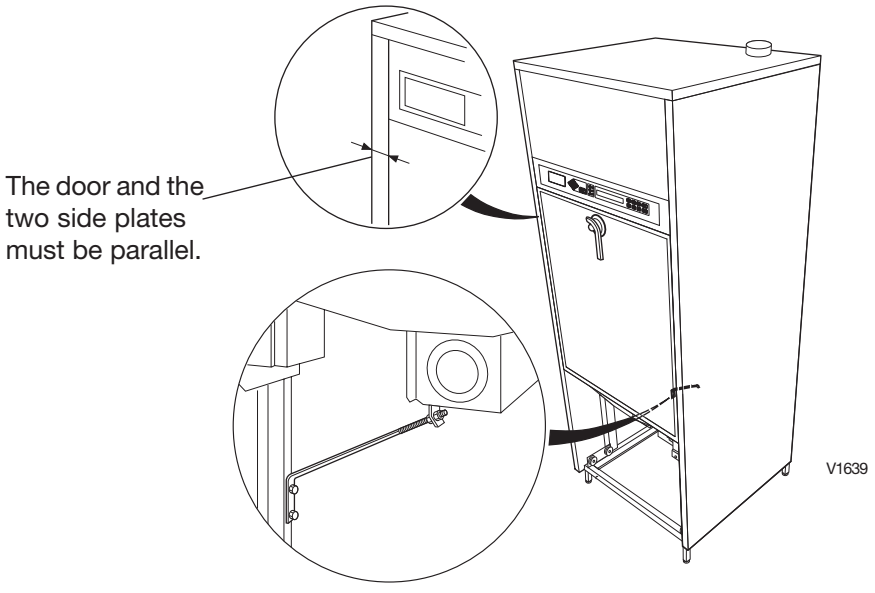


Fig 5. Diagonal adjustment

Connecting electric power

Installation may only be done by authorized personnel.

Connect electric power to the machine as follows:

- Install the machine in accordance with installation category CAT II.
- Connect the power supply to the electrical connections of the machine; see the diagram with alternative connection arrangements.

  For easier servicing and maintenance, the supply to the machine must be fitted with an isolator switch with a 3 mm isolating gap. The device must be located in an easily accessible position close to the machine.
- Open the lower hatch.
- Remove the inner safety plate to access the electrical box.

It is important that the connection has the correct overcurrent protection. The correct fuse rating is stated on the type plate.

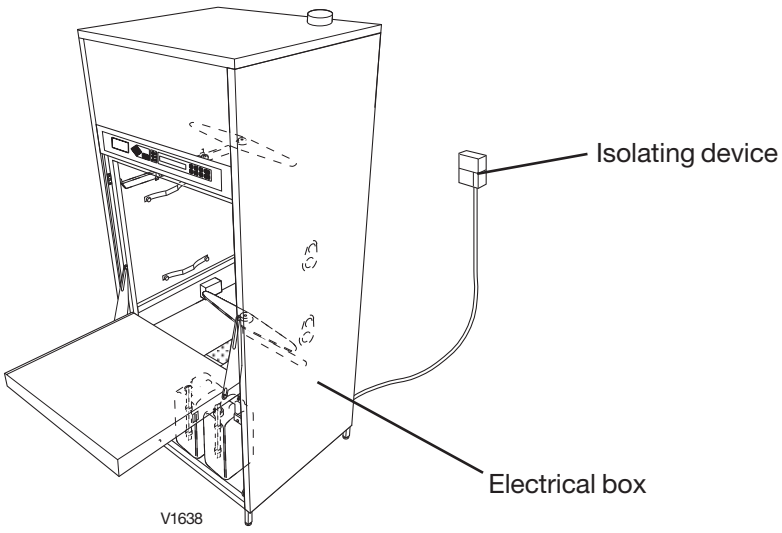


Figure 6 Electrical connection (see electrical diagram in the service instructions)

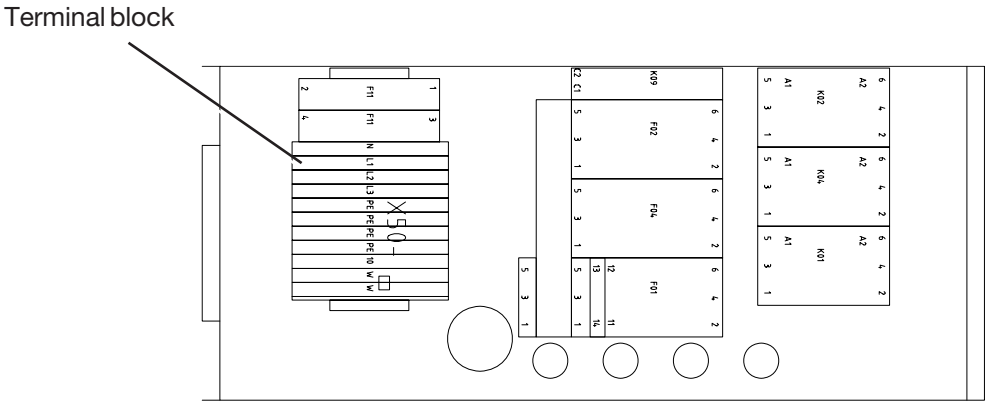


Figure 7. Electrical box

Connecting water, steam, waste and dryer

Installation may only be done by authorized personnel.

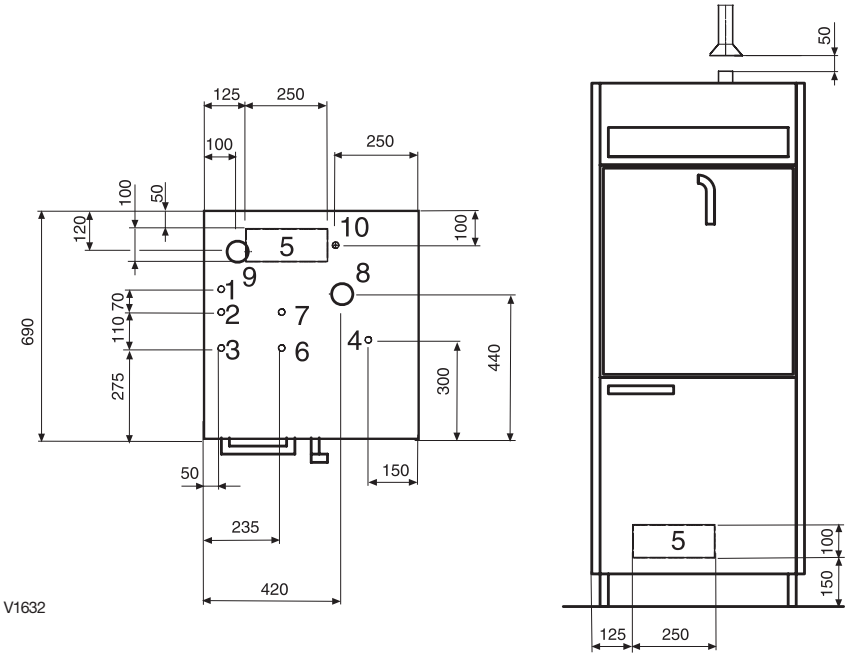
- Provide separate shutoff valves on the water and (if used) steam lines. Flush out the water and steam pipes that are to be connected to the machine, to prevent clogging of filters and valves.
- Connect the disinfector to cold and hot water and to steam and condensate connections, if used. The connections must meet the following requirements:

	Connection	Pressure	Consumption	Flow rate
Cold water	1/2" (15 mm) female	100-800 kPa	approx 15 liters/phase	min 20 l/min
Hot water	1/2" (15 mm) female	100-800 kPa	approx 15 liters/phase	min 20 l/min
Dist. water/ De-ion. water	3/4" (20 mm) male	50-900 kPa*	approx 15 liters/phase	min 20 l/min
Steam	1/2" (15 mm) female	300-500kPa	0.5 kg/min (300 kPa)	
Condensate	1/2" (15 mm) female			

* Where the pressure is lower than 50 kPa a separate feeder pump must be used. Where a separate feeder pump is used, the pressure must not exceed 60 kPa (risk of serious damage to the pump).

- PTFE tape is recommended for sealing the connections.

NOTE:
Distilled or de-ionised water must have a conductivity of less than 40 µS/cm.



1. Distilled/de-ionized water 160 mm above the floor*.
2. Hot water, 245 above the floor, flexible hose, L= 1500 mm supplied*.
3. Cold water, 305 mm above the floor, flexible hose, L= 1500 mm supplied*.
4. Electrical connection , 500 mm above floor.
5. Waste, adjustable within this range (C/L of outlet pipe)
6. Steam connection, 200 mm above floor.
7. Condensate connection, 200 mm above floor.
8. Dryer, exhaust air, at roof, 46-4, 46-5
9. Dryer, exhaust air, at roof, 46-2
10. Distilled/de-ionized water without pressure, 200 mm above the floor.

* A flexible hose can be connected from above directly to the valve 1400 mm above the floor. A hole for the hose in the ceiling or cover plate must be made on site.

Figure 8. Connecting water, steam, waste and dryer

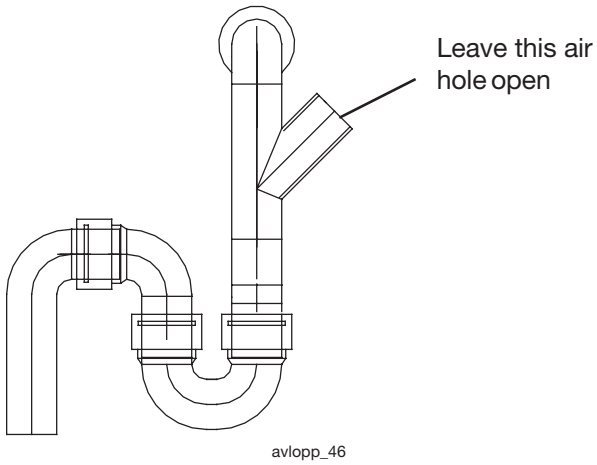


Figure 9. Connecting waste and draft traps

- Connect the disinfector to a waste outlet with a capacity of at least 50 litres/min. The trap can be connected towards the rear or downwards, as shown in Figure 8. Waste diameter: 50 mm.
- Connect air exhaust from dryer (if the machine has a dryer). Air quantity approx 125 m^3/h.

Function check

- Check that the machine is connected to the correct voltage and the waste, water, steam and condensate connections are correctly connected. Open the valves for water and steam.
- Fill the detergent and rinse aid containers and place alarm sensors in the containers.

  Machines with double doors have a system of interlocks to ensure that only one door can be opened at a time.

  If the soiled-side door cannot be opened, check that the clean-side door is closed. The clean-side door can only be opened if the completed process has been approved and the door on the soiled side is closed and locked.
- Place a wash rack in the wash chamber and close the door.
- Choose a program where dosing is done from all detergent and rinse-aid containers and start the machine (see Instructions for use).
- Check that the machine draws water.

Note: If the machine has a distilled water pump, make sure that the pump has been filled with water so that it can deliver enough pressure to open the distilled water valve.

NOTE:
On starting, there must be water in the circulation pump. If there is no water in the pump, the shaft seal may suffer damage.

- Check that the circulation pump is rotating the right direction as indicated by the arrow on the pump motor. If not, isolate the power, change the phase sequence at the electrical connections and restart the machine.

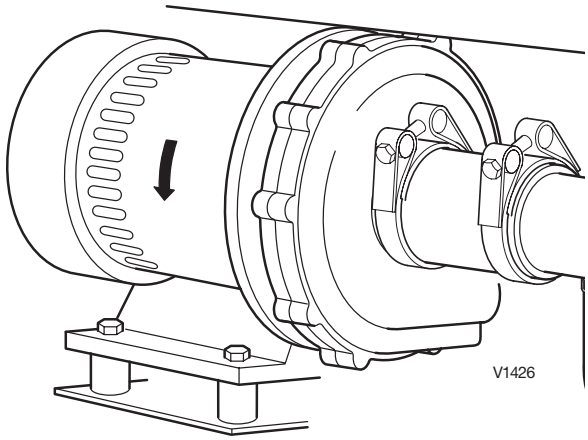


Figure 10. Circulation pump

- Check that the dosing pumps work at the right time in accordance with the program description in the instructions for use and that detergent is drawn off.
- While the program is running, check that the door(s) cannot be opened.

- On a machine with manual double doors, check the door locking function when the program is complete as follows:
  - Check that the soiled-side door side cannot be opened.
  - Open and close the clean side door.
  - Open the soiled-side door.
  - Check that the clean side door cannot be opened.
- Check that there are no water or steam leaks. If necessary, retighten water, steam and waste connections.

Technical data

Dimensions

Outside dimensions

Weight	Total	Loading per machine foot incl. water and load
Machine 46-2 without dryer	150 kg	50 kg
Machine 46-2 with dryer	150 kg	50 kg
Machine 46-4 without dryer	150 kg	55 kg
Machine 46-4 with dryer	180 kg	65 kg
Machine 46-5 without dryer	155 kg	60 kg
Machine 46-5 with dryer	185 kg	70 kg
Width	650 mm	
Depth	690 mm	
Height		
Machine 46-2 without dryer	1600 mm	
Machine 46-2 with dryer	1600 mm	
Machine 46-4 without dryer	1600 mm	
Machine 46-4 with dryer	1860 mm	
Machine 46-5 without dryer	1670 mm	
Machine 46-5 with dryer	1930 mm	

Chamber size

Machine 46-2, 46-4	Chamber depth =590 mm
	Chamber width =550 mm
	Chamber depth =620 mm
	Operational volume 201 liters
	Total volume 280 liters
Machine 46-5	Chamber height =660 mm
	Chamber width = 550 mm
	Chamber depth = 620 mm
	Operational volume 225 liters
	Total volume 305 liters

Connections

Water consumption

about 15-19 liters/phase

Cold water

Water quality	Driinking water with max 5 °dH
Connection	15 (1/2") mm
Pressure	100-800 kPa
Flow rate, min	20 l/min

Hot water

Water quality	Preheated drinking water with max 5 °dH
Temperature	45-60 °C (113 - 140 °F)
Connection	15 (1/2") mm
Pressure	100-800 kPa
Flow rate, min.	20 liters/min

Dist./De-ion. water

Temperature, max	90 °C (194 °F)
Connection	20 (3/4") mm
Pressure	50-800 kPa. Where the pressure is lower than 100 kPa, a separate pressure booster pump must be connected. This is available as an option. Where a separate feeder pump is used, the pressure must not exceed 60 kPa (risk of serious damage to the pump).
Flow rate, min	20 liters/min

The maximum conductivity is determined by the desired washing result.

Steam

Temperature, max	160 °C (320 °F)
Connection	15 (1/2") mm
Pressure	300-500 kPa
Consumption	0.5 kg/min at 300 kPa

Waste, water

ø	50 mm (2")
Capacity	50 liters/min

Waste, air

ø	63 mm
Capacity	125-150 m^3/h, 35 °C (95 °F)
Humidity	100% 40 sec< 40% after 2 min.

Other points

Max outside temperature

50 °C (122 °F)

Sound level

Table 1

Calculated sound power level Lw for the test object, db ref 1 pW.

Octave band frequency (Hz)	125	250	500	1000	2000	4000	8000	LwA	LwAFmax
Correction terms (Kok)	63	67	62	59	58	57	54	66	83

The calculated sound power level implies different sound levels LpA in different types of space. With a larger room volume, the sound level decreases slightly and with a smaller room level it increases slightly. Table 2 below shows three example of what to expect in practice.

Table 2

Calculated sound level LpA for the test object in a 70m³ room, db ref 20 µPa.

Type of room	Description	Operator position*	3 meters from the machine
Hard to sound	All surfaces of tile, plaster, concrete or similar, ie no sound absorbing surfaces and no furniture	65	65
Normally-damped	Some sound absorption in the form of furniture and textiles.	61	60
Damped	Full-cover ceiling absorbent and some furnishing with tables, chairs and textiles.	58	56

* Operator position means 1 meter from the machine and 1.5 meters above the floor. All values are for one machine.

Electrical connections

See Alternative connection arrangements

Overcurrent protection as per Curve C

Heat dissipation to the room

Max 2000W (hot air during drying).

Heat radiation to the room

Max 1100W (during disinfection at 90 °C (194 °F))

Circulation system

Design pressure	0.2 MPa
Working pressure max	0.1 MPa
Design temperature	100 °C (212 °F)
Working temperature max	93 °C (200 °F)

Environmental requirements:

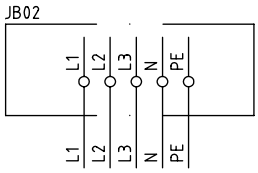
Air humidity max	80% at 31°C (87 °F)
Room temperature	5 - 40 °C (41 - 104 °F)

Degree of protection

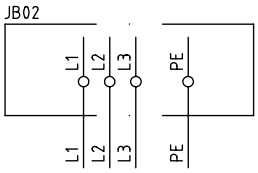
IP21

Alternative connection arrangements

ELECTRICAL CONNECTION
EL-ANSLUTNIG
ELEKTROANSCHLUSS
CONNEXION ÉLECTRIQUE



ELECTRICAL CONNECTION
EL-ANSLUTNIG
ELEKTROANSCHLUSS
CONNEXION ÉLECTRIQUE



46-5 Electric heater	415V 3N+PE, 50Hz 10,8kW 15,9A, FUSE 3x16A, 400V 3N+PE, 50Hz 10,1kW 15,4A, FUSE 3x16A, 380V 3N+PE, 50/60Hz 9,2kW 14,7A, FUSE 3x16A,	240V 3+PE, 60Hz 8,6kW 21,8A, FUSE 3×25A, 230V 3+PE, 50Hz 10,1kW 26,8A, FUSE 3×32A, 208V 3+PE, 60Hz 9,2kW 27A, FUSE 3×30A, 200V 3+PE, 50/60Hz 8,6kW 26,2A, FUSE 3×32A,
46-4 Electric heater	415V 3N+PE, 50Hz 10,8kW 15,9A, FUSE 3x16A, 400V 3N+PE, 50Hz 10,1kW 15,4A, FUSE 3x16A, 380V 3N+PE, 50/60Hz 9,2kW 14,7A, FUSE 3x16A,	240V 3+PE, 60Hz 8,6kW 21,8A, FUSE 3×25A, 230V 3+PE, 50Hz 10,1kW 26,8A, FUSE 3×32A, 208V 3+PE, 60Hz 9,2kW 27A, FUSE 3×30A, 200V 3+PE, 50/60Hz 8,6kW 26,2A, FUSE 3×32A,
46-2 Electric heater	415V 3N+PE, 50Hz 10,1kW 14,6A, FUSE 3x16A, 400V 3N+PE, 50Hz 9,5kW 14,1A, FUSE 3x16A, 400V 3N+PE, 50Hz 6,0kW 9,2A, FUSE 3x10A, SPECIAL SWE. 380V 3N+PE, 50/60Hz 8,6kW 13,4A, FUSE 3x16A,	240V 3+PE, 60Hz 8,0kW 19,7A, FUSE 3×20A, 230V 3+PE, 50Hz 9,5kW 24,5A, FUSE 3×25A, 208V 3+PE, 60Hz 8,6kW 24,6A, FUSE 3×25A, 200V 3+PE, 50/60Hz 8,0kW 24A, FUSE 3×25A,
46-5 Steam heater with dryer	415V 3N+PE, 50Hz 3,5kW 5,1A, FUSE 3x10A, 400V 3N+PE, 50Hz 3,5kW 5,3A, FUSE 3x10A, 380V 3N+PE, 50/60Hz 3,5kW 5,6A, FUSE 3x10A,	240V 3+PE, 60Hz 3,5kW 9,7A, FUSE 3×10A, 230V 3+PE, 50Hz 3,5kW 10,1A, FUSE 3×10A, 208V 3+PE, 60Hz 3,5kW 11,2A, FUSE 3×15A, 200V 3+PE, 50/60Hz 3,5kW 11,7A, FUSE 3×15A,
46-4 Steam heater with dryer	415V 3N+PE, 50Hz 3,5kW 5,1A, FUSE 3x10A, 400V 3N+PE, 50Hz 3,5kW 5,3A, FUSE 3x10A, 380V 3N+PE, 50/60Hz 3,5kW 5,6A, FUSE 3x10A,	240V 3+PE, 60Hz 3,5kW 9,7A, FUSE 3×10A, 230V 3+PE, 50Hz 3,5kW 10,1A, FUSE 3×10A, 208V 3+PE, 60Hz 3,5kW 11,2A, FUSE 3×15A, 200V 3+PE, 50/60Hz 3,5kW 11,7A, FUSE 3×15A,
46-5 Steam heater without dryer	415V 3N+PE, 50Hz 1,1kW 2,4A, FUSE 3x10A, 400V 3N+PE, 50Hz 1,1kW 2,4A, FUSE 3x10A, 380V 3N+PE, 50/60Hz 1,1kW 2,4A, FUSE 3x10A,	240V 3+PE, 60Hz 1,1kW 3,8A, FUSE 3×10A, 230V 3+PE, 50Hz 1,1kW 4,2A, FUSE 3×10A, 208V 3+PE, 60Hz 1,1kW 4,5A, FUSE 3×10A, 200V 3+PE, 50/60Hz 1,1kW 4,8A, FUSE 3×10A,
46-4 Steam heater without dryer	415V 3N+PE, 50Hz 1,1kW 2,4A, FUSE 3x10A, 400V 3N+PE, 50Hz 1,1kW 2,4A, FUSE 3x10A, 380V 3N+PE, 50/60Hz 1,1kW 2,4A, FUSE 3x10A,	240V 3+PE, 60Hz 1,1kW 3,8A, FUSE 3×10A, 230V 3+PE, 50Hz 1,1kW 4,2A, FUSE 3×10A, 208V 3+PE, 60Hz 1,1kW 4,5A, FUSE 3×10A, 200V 3+PE, 50/60Hz 1,1kW 4,8A, FUSE 3×10A,

This product is manufactured by:
GETINGE DISINFECTION AB, Ljungadalsgatan 11, Box 1505, 351 15 Växjö, Sweden

GETINGE